

ABSTRACT OF THE DISCLOSURE

A system and method for building a program (e.g., a control program) for execution by a programmable controller from a source program. The source program, which includes instructions in a high-level programming language (e.g., structured text, C++, Pascal or graphics oriented languages), is separately converted into a first and second processor-executable programs. The first and second processor-executable programs are then compared, and if the first and second processor-executable programs are substantially the same, then one of them is sent to the programmable controller. If they are not substantially the same one of them is corrupt and the conversion process is aborted. In variations, the source program is simultaneously converted into the first and second processor-executable programs using a diversified collection of hardware and software components. In yet other variations, the source program is asynchronously converted so as to temporally separate the conversion of the first and second executable programs.

404597 v8/SD
8_6t08!.DOC